L Number	Hits	Search Text	DB	Time stamp
1	19926	("3" adj2 ("OH" or "-OH" or hydroxyl))	USPAT;	2003/04/04 21:13
-			US-PGPUB;	
			EPO; JPO;	
			DERWENT;	
			IBM TDB	
2	20769	("3" adj2 ("OH" or "-OH" or hydroxyl))	USPAT;	2003/04/04 21:14
	20,03	, o aajz , on or on or nyeronyr,	US-PGPUB;	
			EPO; JPO;	
			DERWENT;	
-			IBM TDB	ļ
3	4550	(("3" adj2 ("OH" or "-OH" or hydroxyl)))	USPĀT;	2003/04/04 21:42
		and ((remov\$4 or lack\$3) SAME ("OH" or	US-PGPUB;	
	-	"-OH" or hydroxyl))	EPO; JPO;	
			DERWENT;	
			IBM TDB	
4	0	((("3" adj2 ("OH" or "-OH" or hydroxyl)))	USPAT;	2003/04/04 21:20
-		and ((remov\$4 or lack\$3) SAME ("OH" or	US-PGPUB;	
		"-OH" or hydroxyl))) and (fentron)	EPO; JPO;	
		, , , , , , , , , , , , , , , , , , , ,	DERWENT;	
			IBM TDB	
5	19	((("3" adj2 ("OH" or "-OH" or hydroxyl)))	USPAT;	2003/04/04 21:21
1		and ((remov\$4 or lack\$3) SAME ("OH" or	US-PGPUB;	
		"-OH" or hydroxyl))) and fenton	EPO; JPO;	
			DERWENT;	
			IBM TDB	
6.	3	(((("3" adj2 ("OH" or "-OH" or hydroxyl)))	USPAT;	2003/04/04 21:27
		and ((remov\$4 or lack\$3) SAME ("OH" or	US-PGPUB;	
		"-OH" or hydroxyl))) and fenton) and	EPO; JPO;	
		(adaptor or adapter)	DERWENT;	
			IBM TDB	
7	2	("6117634").PN.	USPAT;	2003/04/04 21:23
			US-PGPUB;	
			EPO; JPO;	
			DERWENT;	
			IBM_TDB	
8	1621	((("3" adj2 ("OH" or "-OH" or hydroxyl)))	USPAT;	2003/04/04 21:27
		and ((remov\$4 or lack\$3) SAME ("OH" or	US-PGPUB;	
		"-OH" or hydroxyl))) and (fragment or	EPO; JPO;	
		fragmented or fragmentation)	DERWENT;	
			IBM_TDB	
9	150	(((("3" adj2 ("OH" or "-OH" or hydroxyl)))	USPAT;	2003/04/04 21:27
		and ((remov\$4 or lack\$3) SAME ("OH" or	US-PGPUB;	
		"-OH" or hydroxyl))) and (fragment or	EPO; JPO;	
		fragmented or fragmentation)) and (adaptor	DERWENT;	
10	1 4 7	or adapter)	IBM_TDB	2002/04/04 21:00
10	147	((((("3" adj2 ("OH" or "-OH" or	USPAT;	2003/04/04 21:28
		hydroxyl))) and ((remov\$4 or lack\$3) SAME	US-PGPUB;	
		("OH" or "-OH" or hydroxyl))) and	EPO; JPO;	
		<pre>(fragment or fragmented or fragmentation)) and (adaptor or adapter)) not {(((("3"</pre>	DERWENT;	
		and (adaptor or adapter)) not ((((("3" adj2 ("OH" or "-OH" or hydroxyl))) and ,	IBM_TDB	
		((remov\$4 or lack\$3) SAME ("OH" or "-OH"		
		or hydroxyl))) and fenton) and (adaptor or		
		adapter))		
11	1	(((((("3" adj2 ("OH" or "-OH" or	USPAT;	2003/04/04 21:29
* *	T	hydroxyl))) and ((remov\$4 or lack\$3) SAME	US-PGPUB;	2000/04/04 21.20
		("OH" or "-OH" or hydroxyl))) and	EPO; JPO;	
		(fragment or fragmented or fragmentation))	DERWENT;	
		and (adaptor or adapter)) not (((("3"	IBM TDB	
		adj2 ("OH" or "-OH" or hydroxyl))) and		,
		((remov\$4 or lack\$3) SAME ("OH" or "-OH"		
		or hydroxyl))) and fenton) and (adaptor or		
		adapter))) and (hydroxyl adj1 radical)		
1			i	·

12	146	(((((("3" adj2 ("OH" or "-OH" or	USPAT;	2003/04/04 21:29
		hydroxyl))) and ((remov\$4 or lack\$3) SAME	US-PGPUB;	
		("OH" or "-OH" or hydroxyl))) and	EPO; JPO;	
		<pre>(fragment or fragmented or fragmentation)) and (adaptor or adapter)) not (((("3"</pre>	DERWENT; IBM TDB	
		adj2 ("OH" or "-OH" or hydroxyl))) and	1BM_10B	
		((remov\$4 or lack\$3) SAME ("OH" or "-OH"		
		or hydroxyl))) and fenton) and (adaptor or		
		adapter))) not (((((("3" adj2 ("OH" or		
		"-OH" or hydroxyl))) and ((remov\$4 or		
	į	lack\$3) SAME ("OH" or "-OH" or hydroxyl))) and (fragment or fragmented or		
		fragmentation)) and (adaptor or adapter))		
		not ((((("3" adj2 ("OH" or "-OH" or		
		hydroxyl))) and ((remov\$4 or lack\$3) SAME]	
		("OH" or "-OH" or hydroxyl))) and fenton)		
		<pre>and (adaptor or adapter))) and (hydroxyl adj1 radical))</pre>		
13	87		USPAT;	2003/04/04 21:42
		hydroxyl))) and ((remov\$4 or lack\$3) SAME	US-PGPUB;	
		("OH" or "-OH" or hydroxyl))) and	EPO; JPO;	
		(fragment or fragmented or fragmentation))	DERWENT;	
		and (adaptor or adapter)) not ((((("3" adj2 ("OH" or "-OH" or hydroxyl))) and	IBM_TDB	
		((remov\$4 or lack\$3) SAME ("OH" or "-OH"		
		or hydroxyl))) and fenton) and (adaptor or		
		adapter))) not (((((("3" adj2 ("OH" or		
		"-OH" or hydroxyl))) and ((remov\$4 or		
		<pre>lack\$3) SAME ("OH" or "-OH" or hydroxyl))) and (fragment or fragmented or</pre>		
		fragmentation)) and (adaptor or adapter))		
		not ((((("3" adj2 ("OH" or "-OH" or		
		hydroxyl))) and ((remov\$4 or lack\$3) SAME		
]	("OH" or "-OH" or hydroxyl))) and fenton) and (adaptor or adapter))) and (hydroxyl		
		adj1 radical))) and exonuclease		
14	0		USPAT;	2003/04/04 21:43
		hydroxyl))) and ((remov\$4 or lack\$3) SAME	US-PGPUB;	
		("OH" or "-OH" or hydroxyl))) and (fragment or fragmented or fragmentation))	EPO; JPO; DERWENT;	
		and (adaptor or adapter)) not (((("3"	IBM TDB	
		adj2 ("OH" or "-OH" or hydroxyl))) and		
		((remov\$4 or lack\$3) SAME ("OH" or "-OH"		
		or hydroxyl))) and fenton) and (adaptor or		
		adapter)))		
		lack\$3) SAME ("OH" or "-OH" or hydroxyl)))		
		and (fragment or fragmented or		
		fragmentation)) and (adaptor or adapter))		
		not ((((("3" adj2 ("OH" or "-OH" or hydroxyl))) and ((remov\$4 or lack\$3) SAME		
		("OH" or "-OH" or hydroxyl))) and fenton)		
		and (adaptor or adapter))) and (hydroxyl		
		adj1 radical))) and exonuclease) and		
		<pre>((remov\$4 or lack\$3) NEAR("OH" or "-OH" or hydroxyl))</pre>		
15	1814	(sonicate sonication sonicated) and	USPAT;	2003/04/04 21:44
		(adaptor adaptor) and (PCR or amplif\$5)	US-PGPUB;	
			EPO; JPO;	
			DERWENT; IBM TDB	
16	331	((sonicate sonication sonicated) and	USPAT;	2003/04/04 21:44
		(adaptor adaptor) and (PCR or amplif\$5))	US-PGPUB;	
		and ((sonicate sonicated sonication) SAME	EPO; JPO;	
t l		(fragment\$4))	DERWENT; IBM TDB	
17	331	(((sonicate sonication sonicated) and	_	2003/04/04 21:45
17	331	(((sonicate sonication sonicated) and (adaptor adaptor) and (PCR or amplif\$5))	USPĀT; US-PGPUB;	2003/04/04 21:45
17	331	(adaptor adaptor) and (PCR or amplif\$5)) and ((sonicate sonicated sonication) SAME	USPĀT; US-PGPUB; EPO; JPO;	2003/04/04 21:45
17	331	(adaptor adaptor) and (PCR or amplif\$5))	USPĀT; US-PGPUB;	2003/04/04 21:45

Page 2

	•				
18	213	((((sonicate sonication sonicated) and	USPAT;	2003/04/04	21:48
		(adaptor adaptor) and (PCR or amplif\$5))	US-PGPUB;		
		and ((sonicate sonicated sonication) SAME	EPO; JPO;		
		(fragment\$4))) and (DNA RNA nucleic)) and	DERWENT;		
		(nuclease exonuclease)	IBM_TDB	İ	
19	266	(adaptor adapter) NEAR (fragment\$5)	USPAT;	2003/04/04	21:46
			US-PGPUB;		
			EPO; JPO;		
			DERWENT;		
	!		IBM_TDB		
20	4609	adaptor adapter) SAME(fragment\$5	USPAT;	2003/04/04	21:46
		•	US-PGPUB;		
	ļ		EPO; JPO;		
			DERWENT;		
			IBM_TDB		
21	4609	(adaptor adapter) SAME (fragment\$5)	USPAT;	2003/04/04	21:46
		-	US-PGPUB;		
			EPO; JPO;		
-			DERWENT;		
			IBM TDB		
22	73	(((((sonicate sonication sonicated) and	USPĀT;	2003/04/04	21:48
		(adaptor adaptor) and (PCR or amplif\$5))	US-PGPUB;		
		and ((sonicate sonicated sonication) SAME	EPO; JPO;		
	• 1	(fragment\$4))) and (DNA RNA nucleic)) and	DERWENT;		
		(nuclease exonuclease)) AND (adaptor	IBM TDB		
		adapter) SAME (fragment\$5)	_		
23	213	(((sonicate sonication sonicated) and	USPAT;	2003/04/04	21:48
		(adaptor adaptor) and (PCR or amplif\$5))	US-PGPUB;		
		and ((sonicate sonicated sonication) SAME	EPO; JPO;		
		(fragment\$4))) and (nuclease exonuclease)	DERWENT;		
			IBM TDB		
24	73	((((sonicate sonication sonicated) and	USPĀT;	2003/04/04	21:57
		(adaptor adaptor) and (PCR or amplif\$5))	US-PGPUB;	1	
		and ((sonicate sonicated sonication) SAME	EPO; JPO;		
		(fragment\$4))) and (nuclease exonuclease))	DERWENT;		
		AND (adaptor adapter) SAME (fragment\$5)	IBM TDB		
25	8	(((((sonicate sonication sonicated) and	USPAT;	2003/04/04	21:58
		(adaptor adaptor) and (PCR or amplif\$5))	US-PGPUB;		
		and ((sonicate sonicated sonication) SAME	EPO; JPO;		
		(fragment\$4))) and (nuclease exonuclease))	DERWENT;	1	
		AND (adaptor adapter) SAME (fragment\$5))	IBM TDB	1	
		and (sonicat\$5 SAME (nuclease		1	
		exonuclease))			

```
FILE 'BIOSIS, MEDLINE, EMBASE, EMBAL, SCISEARCH, BIOTECHDS, CAPLUS'
  ENTERED AT 23:02:05 ON 04 APR 2003
        7 S (DOUBLE()(ADAPTER? OR ADAPTOR?))
L1
L2
        2 DUP REM L1 (5 DUPLICATES REMOVED)
        31 S (DOUBLE()STRANDED()(ADAPTER? OR ADAPTOR?))
L3
L4
        1 S L3 AND SONICAT?
L5
       4068 S SONICAT? AND DNA
L6
       45 S L5 AND (EXONUCLEASE OR (EXONUCLEASE()III))
       46 S L5 AND (EXONUCLEASE? OR (EXONUCLEASE()III))
L7
L8
       211 S L5 AND (EXONUCLEASE? OR (EXONUCLEASE()III) OR
NUCLEASE?)
        2 S L8 AND (ADAPTOR? OR ADAPTER?)
L9
L10
        2 DUP REM L9 (0 DUPLICATES REMOVED)
       2366 S (ADAPTOR? OR ADAPTER?) AND (PCR OR AMPLIF?)
L11
       103 S L11 AND (EXONUCLEASE? OR (EXONUCLEASE()III) OR
L12
NUCLEASE?)
L13
        72 S L12 AND (FRAGMENT?)
L14
        61 DUP REM L13 (11 DUPLICATES REMOVED)
        48 S L14 AND PRIMER?
L15
L16
        47 S L15 NOT L10
L16 ANSWER 20 OF 47 BIOTECHDS COPYRIGHT 2003 THOMSON DERWENT
AND ISI
ACCESSION NUMBER: 1998-01892 BIOTECHDS
            Adaptor PCR for the specific
TITLE:
         amplification of unknown DNA fragments;
          single-specific primer polymerase chain reaction
              Willems H
AUTHOR:
CORPORATE SOURCE: Inst. Hyg. Infec. Dis. Anim. Giessen
               Institute for Hygiene and Infectious Diseases of Animals,
LOCATION:
                                                              P248.13. B.55
         Frankfurter Str. 89-91, D-35392 Giessen, Germany.
              BioTechniques; (1998) 24, 1, 22,24,26
SOURCE:
         CODEN: BTNQDO
         ISSN: 0736-6205
DOCUMENT TYPE: Journal
LANGUAGE:
                English
TI Adaptor PCR for the specific amplification
   of unknown DNA fragments;
    single-specific primer polymerase chain reaction
AB A new method for amplifying unknown DNA fragments
   from a complex mixture of genomic DNA without reamplifying is based on
   single-specific primer polymerase chain reaction (PCR
   ) (SSP-PCR) and degradation of ds DNA and has been used to
   identify NotI-linking clones in mapping of the Coxiella burnetti
```

chromosome... sequence data are only partially available or to screen sites for transposons, insertion elements or pathogenicity

islands. In an example, SSP-PCR was performed on C. burnetti total DNA, restricted with Sau3A and ligated to Sau3A adaptors with phage T4 DNA-ligase. Excess DNA adaptors were removed. SSP-PCR was performed for 40 cycles using a C. burnetti-specific primer and the resultant was digested with exonuclease-III. The mixture was subjected to ds PCR using a C, burnetti and adaptor DNA primer for 35 cycles. The purified PCR product was sequenced and the data used to construct a C. burnetti-specific primer derived from the formerly unknown DNA fragment. (9 ref)

CT SINGLE-SPECIFIC PRIMER POLYMERASE CHAIN REACTION METHOD, ADAPTOR, APPL. UNKNOWN FRAGMENT DNA AMPLIFICATION, COXIELLA BURNETTI MAPPING BACTERIUM DNA PRIMER (VOL.17, NO.5)

FILE 'BIOSIS, MEDLINE, EMBASE, EMBAL, SCISEARCH, BIOTECHDS, CAPLUS' ENTERED AT 19:59:03 ON 04 APR 2003 4235678 S DNA OR NUCLEIC OR RNA OR OLIGONUCLEOTIDE? L1 41330 S L1 AND ("-OH" OR "OH" OR HYDROXYL) L2 L3 4869 S L2 AND FRAGMENT? L4 14 S L3 AND (ADAPTOR? OR ADAPTER?) 13 DUP REM L4 (1 DUPLICATE REMOVED) L5 L6 1220 S L2 AND FENTON? 10 S L6 AND (EXONUCLEASE()III) L7 2 DUP REM L7 (8 DUPLICATES REMOVED) L8 2 S L8 NOT L5 L9 L10 0 S L6 AND (ADAPTOR? OR ADAPTER?) L11 17 S L6 AND (PCR OR AMPLIF?) 8 DUP REM L11 (9 DUPLICATES REMOVED) L12 4127 S L2 AND ((REMOVE? OR REMOV? OR LACK?) AND ("OH" OR "-L13 OH" OR H 82 S L13 AND (EXONUCLEASE()III) L14 L15 0 S L14 AND (ADAPTOR? OR ADAPTER?) 30 DUP REM L14 (52 DUPLICATES REMOVED) L16 30 S L16 NOT L11 L17 339 S L3 AND (3()HYDROXYL) L18 L19 39 S L18 AND EXONUCLEASE? 14 DUP REM L19 (25 DUPLICATES REMOVED) L20 14 S L20 NOT L12 L21 L22 14 S L20 NOT L9 L5 ANSWER 2 OF 13 BIOTECHDS COPYRIGHT 2003 THOMSON DERWENT AND ISI ACCESSION NUMBER: 2003-06142 BIOTECHDS Preferential nucleic acid synthesis reaction of TITLE: selected regions of target nucleic acids, by using a blocking agent which preferentially binds templates which are not desirable when amplifying the nucleic acids DNA primer for preferential DNA synthesis HOEFER M; KRANZ H; KLINK M AUTHOR: PATENT ASSIGNEE: LION BIOSCIENCE AG EP 1253205 30 Oct 2002 PATENT INFO: APPLICATION INFO: EP 2001-109971 24 Apr 2001 PRIORITY INFO: EP 2001-109971 24 Apr 2001; EP 2001-109971 24 Apr 2001 DOCUMENT TYPE: Patent English LANGUAGE: OTHER SOURCE: WPI: 2003-077619 [08] TI Preferential nucleic acid synthesis reaction of selected regions of target nucleic acids, by using a blocking agent

which preferentially binds templates which are not desirable when amplifying the nucleic acids;

DNA primer for preferential DNA synthesis

AB DERWENT ABSTRACT:

NOVELTY - Nucleic acid (NA) synthesis reaction of selected regions of target nucleic acids (tNAs) from a group of two different tNAs, comprising combining in a reaction mixture, two different tNAs, polymerase, additionally. . . exposing reaction mixture to temperature at which NAs are synthesized by polymerase, is new.

DETAILED DESCRIPTION - Preferentially synthesizing nucleic acids, comprising: (a) combining in a reaction mixture, at least two different tNAs with at least one nucleotide triphosphate, polymerase,. . (M), comprising one or more amplification primers, and a blocking agent.

BIOTECHNOLOGY - Preferred Method: The NA template is RNA and the polymerase present has the capability to reverse transcribe RNA into DNA, or the template is a DNA. The method further comprises at least a second amplification primer which is capable of binding the complementary strand of the strand that the first amplification primer binds. The blocking agent is a nucleic acid molecule comprising a nucleic acid sequence which is sufficiently complementary to the tNA in order for it to bind and which can not be. . . end. The blocking agent binds 3-prime to at least one of the amplification primers present in the reaction. The blocking nucleic acid molecule carries a 5' modification, preferably a phosphate and/or an amino group, which prohibits the polymerase from either 5' exonucleolytic attack on the blocking agent or its strand displacement. The blocking nucleic acid molecule carries a 3' modification such as a phosphate group, amino group, biotin group, a nucleotide lacking an -OH group at the C-3 position of the ribose and/or a terminally inverted 3' end nucleotide. The blocking nucleic acid molecule is present in the reaction at a molar ratio of 1:1-100:1 in excess of the amplification primers. The polymerase is Pwo DNA polymerase and/or Pfu DNA polymerase which lacks 5'-3' exonuclease activity and/or strand displacement capability.

USE - The method is useful for nucleic acid synthesis reaction of one or more selected regions of one or more tNAs from a group of at least two different tNAs. The method is especially useful for creating DNA libraries. (All claimed.)

L17 ANSWER 26 OF 30 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER:

1997:181289 CAPLUS

DOCUMENT NUMBER:

126:259706

TITLE:

Method of site-directed mutagenesis using long primer-unique site elimination and exonuclease

Ш

AUTHOR(S): Nicolas, G.; Pedroni, S.; Fournier, C.; Gautero, H.;

Lecomte, M.-C.

CORPORATE SOURCE: INSERM U409, Faculte de Medecine Xavier Bichat,

Paris,

Fr.

SOURCE:

BioTechniques (1997), 22(3), 430-434

CODEN: BTNQDO; ISSN: 0736-6205

PUBLISHER:

Eaton

DOCUMENT TYPE:

Journal

LANGUAGE:

English

TI Method of site-directed mutagenesis using long primer-unique site elimination and exonuclease III

AB Long primer-unique site elimination (LP-USE) mutagenesis involves use of a selection mutagenic primer directed to a restriction site and of a target mutagenic primer carrying the desired mutation to generate by PCR a long primer for second strand synthesis, which was followed by ligation. Restriction enzymes, used to produce linearized wild-type plasmids (which transform less efficiently than the mutated plasmids lacking these sites), aid in selecting mutated plasmids after transformation in mismatch repair-deficient strains of Escherichia coli. The authors improve mutated plasmid recovery by treatment of linearized plasmids with exonuclease III to remove mononucleotides from recessed or blunt 3'-OH termini after treatment with the restriction enzyme. The authors used a selection primer to introduce a mutation into the unique BamKI site of plasmid pGEX-KG and backward primers to produce mutations in spectrin peptides.

ST site directed mutagenesis LPUSE exonuclease III; long primer unique site elimination exonuclease; restriction site elimination mutagenesis exonuclease III

IT Genetic methods

(LP-USE (long primer-uniq